

Claims

What is claimed is:

- 1 1. A tub filler and overflow assembly for mounting in an
2 overflow opening in a tub wall, said assembly comprising:
3 inner and outer bodies;
4 a fastener connecting said bodies and adapted to draw them
5 together to clamp toward opposed faces of the tub wall around the
6 overflow opening;
7 an overflow water outlet passage extending through said inner
8 and outer bodies;
9 a water inlet passage extending through said inner and outer
10 bodies, said water inlet passage having an inlet defined by said outer
11 body and an outlet defined by said inner body; and
12 a flow conditioning assembly supported by said inner body at said
13 outlet of said water inlet passage;
14 said outlet and said flow conditioning assembly defining a non-
15 circular water discharge opening;
16 said inlet flow conditioning assembly including a non-circular
17 screen assembly in series flow relationship with said water discharge
18 opening;
19 said screen assembly including a plurality of screen laminas each
20 having a plurality of interstices for flow of water through the screen
21 assembly.

- 1 2. A tub filler and overflow assembly as claimed in claim 1,
2 said water discharge opening being rectangular.

- 1 3. A tub filler and overflow assembly as claimed in claim 1,
2 said water discharge opening being elongated and having a longitudinal
3 axis generally parallel to the tub wall.

- 1 4. A tub filler and overflow assembly as claimed in claim 1,
2 said water discharge opening being angularly inclined away from the tub
3 wall.

1 5. A tub filler and overflow assembly as claimed in claim 1,
2 said flow conditioning assembly including a flow straightener upstream
3 of said screen assembly.

1 6. A tub filler and overflow assembly as claimed in claim 5,
2 said flow straightener including a plurality of barriers dividing flow
3 through the flow straightener into a number of separated flow
4 segments.

1 7. A tub filler and overflow assembly as claimed in claim 1,
2 further comprising a check valve in said overflow water outlet passage
3 permitting flow only in the direction from said outer body to said inner
4 body.

1 8. A tub filler and overflow assembly as claimed in claim 7,
2 said check valve being mounted on said outer body.

1 9. A tub filler and overflow assembly as claimed in claim 6,
2 further comprising an unobstructed header region between said flow
3 straightener and said screen assembly.

1 10. A tub filler and overflow assembly as claimed in claim 6,
2 said water inlet passage having a corner immediately upstream of said
3 flow conditioning assembly.

1 11. A tub filler and overflow assembly as claimed in claim 6,
2 said barriers comprising vanes parallel to one another and parallel to the
3 direction of flow through said inlet flow conditioning assembly.

1 12. A tub filler and overflow assembly as claimed in claim 6,
2 said plurality of barriers numbering between three and ten.

1 14. A tub filler and overflow assembly as claimed in claim 6,
2 said screen laminas extending across the path of flow through said inlet
3 flow conditioning assembly.

1 15. A tub filler and overflow assembly as claimed in claim 14,
2 said screen laminas being attached together by a process such as spot
3 welding or sintering.

1 16. A tub filler and overflow assembly as claimed in claim 14,
2 each said screen lamina comprising a wire mesh, the wire directions of
3 each said screen lamina being angularly offset from the wire directions
4 of an immediately adjacent one of said screen laminas.

1 17. A tub filler and overflow assembly as claimed in claim 16,
2 alternate ones of said screen laminas having wire directions angularly
3 offset by about forty-five degrees from the wire directions of the
4 remaining ones of said screen laminas.

1 18. A tub filler and overflow assembly as claimed in claim 14,
2 said plurality of screen laminas numbering five or more.

1 19. A tub filler and overflow assembly as claimed in claim 18,
2 said plurality of interstices of each said screen lamina numbering at least
3 in the hundreds.